Human travelers to Mars will experience unprecedented biological, physiological, and psychosocial challenges that could lead to significant health & performance decrements during and after the mission.

NASA’s Human Research Program is responsible for characterizing the effects of spaceflight and developing mitigation strategies.
5 Hazards of Human Spaceflight

- Space Radiation
- Isolation & Confinement
- Distance from Earth
- Altered Gravity
- Hostile, Closed Environment
Astronauts on a Mars mission will experience unprecedented physiological, environmental, and psychosocial challenges.
Lunar Surface Research Operations

Depending on mission design and duration, Lunar Surface Operations Missions could add significantly to our understanding/mitigation/validation of human health and performance risks during future Mars surface missions.

- Autonomous egress/ post-landing operations
- Long-term habitation/exploration